

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD
WETLAND WILDLIFE HABITAT MANAGEMENT
 (acre)
 Code 644

DEFINITION

Retaining, developing, or managing habitat for wetland wildlife.

PURPOSE

This practice may be applied as part of a resource management system to support the following purpose:

- To maintain, develop, or improve habitat for birds such as waterfowl, shorebirds and songbirds; fur-bearers; fish; reptiles and amphibians; invertebrates and other flora and fauna associated with wetlands.

CONDITIONS WHERE PRACTICE APPLIES

On or adjacent to wetlands, streams, lakes, estuaries and other water bodies where wetland-associated wildlife habitat can be managed. This practice applies to natural wetlands and water bodies as well as wetlands that may have been previously restored (657), enhanced (659), or created (658).

CRITERIA

Identify wetland goals and objectives. Identify the types, amount, and distribution of habitat and the practices necessary to achieve the planned objectives.

Native plant materials will be used where possible.

Integrated pest management shall be used when planning for wildlife habitat.

The landowner shall obtain all necessary local, state and federal permits that apply.

The landowner shall ensure that water rights exist to achieve the management objectives.

CONSIDERATIONS**Hydric Soils**

Consider the presence of hydric soils onsite and the factors influencing hydric soil development and maintenance including: climate, parent material, landscape position, topography, biological and anthropomorphic influences, and time.

Water Quantity

Regulating, impounding, and/or restoring natural hydrology can have both positive and negative effects on the water budget of the watershed. Downstream flooding can be reduced or increased depending on the management regime in the wetland(s). Groundwater recharge can be affected through percolation and infiltration due to changes in water quantity in impoundment areas.

The effect that changes in volumes and/or rates of runoff, infiltration, evaporation, and transpiration have on the water budget should be considered.

Effects on downstream flows or aquifers that would affect other water uses or users should be taken into account (e.g. fish use and sub-surface recharge).

Water Quality

The importance of water quality in wetland systems cannot be over-emphasized. Water quality can affect wildlife populations by reducing food sources. Decreases in food sources could occur through shifts in vegetative

communities or from effects on the existing food web caused by sediment accumulations or through direct water contamination.

Impounding water or reducing wetland outflow may result in sediment storage and a reduction in sediment transport to downstream areas.

Consider effects to groundwater and surface water from movement of dissolved substances such as nitrates, salts, and phosphates. Levels of pathogens (e.g. fecal coliform), and organic matter (e.g. manure) should also be considered.

Hazardous materials such as lead, cyanide, arsenic, and radioactive substances which are expected or known to occur on the site could effect wildlife or human activities related to wildlife.

Additionally, resource concerns such as reduced oxygen availability can have direct impacts on wildlife.

Consider effects of temperature, reduced dissolved oxygen, and pH on on-site and downstream surface water.

All transport mechanisms of water pollutants shall be considered, including wind, water, and air.

Plant Communities

Wildlife will utilize one or more wetland community types to complete their lifecycles. When planning for wildlife, habitat with diverse plant communities is usually preferred.

Consider effects of maintaining early serial stages, over establishing late serial stages. Early serial stage vegetation often requires higher management and maintenance.

Management of non-native and invasive plants may be necessary in order to retain or re-establish a native plant community.

Consider short-term supplements to plant establishment in order to ensure a healthy and

vigorous stand of desired species (e.g. animal damage protection and seedling release).

Domestic Animals

If improperly managed, livestock can have negative impacts on wetlands. When managed properly, livestock can be used as a management tool in areas where invasive vegetation will out-compete native species.

Consider effects of livestock grazing on runoff, infiltration, and soil compaction.

Consider alternatives for excluding livestock from wetland and associated buffer areas.

Fish and Wildlife

Consider effects of wetland management on all fish and wildlife species. State and Federal listed species should receive special consideration.

Consider effects of management on non-native, invasive animal species (e.g. bullfrogs, starlings and nutria) currently or potentially on-site.

Consider using artificial nesting structures that are designed for the region as a temporary practice until natural habitat features are restored.

Fish accessibility should be considered when designing structures to control hydrology.

Manipulation of beaver dams with respect to water control structures should be considered on a site-specific basis.

Consider that manipulations of habitat may impact more than the desired kinds of wildlife. These possible effects shall be evaluated and taken into consideration during the planning process.

Habitat Diversity

Consider locating the management practice adjacent to existing wetlands, other water bodies, or uplands related to wetlands.

Consider adding structural complexity by placing logs and rootwads in the wetland.

Snag creation should be considered where risks to human and forest health are minimal.

Habitat Corridors

Habitat corridors contribute to wetland system complexity and diversity, decrease habitat fragmentation, and maximize use of the site at the landscape level by wetland-associated wildlife. Consider connections to adjacent wetlands, uplands, buffers or water bodies.

Human Considerations

Consider effects of management actions on compliance with state and federal hunting regulations (e.g., baiting, proximity to urban areas).

Consider the impact of increased wildlife uses on adjacent lands (e.g., crop damage, decreased water quality and damage to buffer areas).

Consider the effects of management actions on cultural resources that may exist on-site.

Consider the long-term costs associated with operation and maintenance of any applied practices.

PLANS AND SPECIFICATIONS

Development of management options will be based on the use of the Aquatic & Terrestrial Habitat Evaluation Guide (Biology Technical Note 14). This habitat evaluation process will result in a quality rating for habitat based on a Resource Management System (RMS). The RMS must meet the minimum acceptable level as listed in Section III of the Field Office Technical Guide.

Specifications will be developed for each site. The specifications will be prepared in accordance with the criteria for the Standard and shall describe the requirements for

applying the Practice to achieve its intended use. Appropriate job sheets, narrative statements in the conservation plan, or other acceptable documentation, will be used to record the items needed to carry out this practice.

Requirements for operation and maintenance of the practice will be incorporated into site specifications.

The conservation plan will:

Designate the location and amount of land managed for wetland wildlife.

List the target plant community types (e.g. emergent, scrub/shrub, forested) and their dominant species.

List those practices necessary to retain, manage, or create sufficient food, water and cover for wildlife.

Operation and Maintenance

This practice will be inspected periodically and restored as needed to maintain the stated purpose. Additional operation and maintenance requirements will be developed on a site-specific basis to assure performance of the practice as intended over time.

REFERENCES

Oregon NRCS, 1997. Wildlife Wetland Habitat Management, Conservation Practice Standard, Field Office Technical Guide, Section IV.

Dring, Timothy, Rachel Maggi, Martha Chaney and Mark Schuller, 2000. Biology Technical Note 14, Aquatic & Terrestrial Habitat Evaluation Guide, NRCS Washington.